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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/587,282	05/22/2007	John Christopher Rudin	200313701-2	4910
22879 7590 05/15/2009 HEWLETT PACKARD COMPANY P O BOX 272400, 3404 E. HARMONY ROAD INTELLECTUAL PROPERTY ADMINISTRATION FORT COLLINS, CO 80527-2400				
EXAMINER				
WONG, TINA MEI SENG				
ART UNIT		PAPER NUMBER		
2874				
NOTIFICATION DATE		DELIVERY MODE		
05/15/2009		ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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### Office Action Summary

**Application No.**

10/587,282

**Applicant(s)**

RUDIN ET AL.

**Examiner**

TINA M. WONG

**Art Unit**

2874

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 April 2009.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 and 14-18 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-9 and 14-18 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 25 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO/SF-08)  
Paper No(s)/Mail Date \_\_\_\_\_

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

This Office action is responsive to Applicant's response submitted 13 April 2009.

#### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1, 2, 4, 5, 9, 14 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Patent Abstract of Japan/Japanese Patent Publication 02039086 to Toshiro.**

In regards to claims 1, 2, 4, 5, 9, 14 and 18, Toshiro teaches a color display device (figure 2) comprising a first display substrate (11) and a second display substrate (12) being spaced apart and opposed to each other, a layer of an electro-optic material (liquid crystal) between the substrates, a set of first electrodes on an inner surface of the first display substrate and a set of second electrodes on an inner surface of the second display substrate, the first electrodes overlapping the second electrodes to define pixels for selectively applying an electric field across at least some of the electro-optic material, the electrodes (13 & 14) arranged substantially orthogonally to each other, a set of first color filters (17a) on the first display substrate, each of the electrodes being in register with one of the first color filters and a set of second color filters (17b) on the second display substrate, each of the second electrodes being in register with one of the second color filters whereby the color of light transmitted through a pixel is determined by the light transmitted by both the first color filter and the second color filter that intersect at that pixel. Furthermore, Toshiro teaches a repeating stripe of cyan (7c), magenta (7m) and yellow

(7y), and selected so that any two-by-two array pixels contains at least one red, one green and one blue pixel to produce white light when mixed.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 3, 6-8 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Patent Abstract of Japan/Japanese Patent Publication 02039086 to Toshiro.**

In regards to claims 3 and 17, although Toshiro does not explicitly teach alternating strips of specific colors for the first and second filter, Toshiro does teach repetition of stripes. Furthermore, it would simplify the manufacturing process of the device by using only two colors on each substrate. Additionally, depending on the desired resultant output, the yellow/cyan and the yellow/magenta would be a possible combination for one of ordinary skill to consider.

In regards to claims 6 and 7, although not explicitly stated, reflecting filters between a backlight and display are well known in the art.

In regards to claim 8, although not explicitly stated, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to have included auxiliary electrodes (busbar) to improve the electrical conductivity.

**Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Patent Abstract of Japan/Japanese Patent Publication 02039086 to Toshiro.**

Toshiro teaches a color liquid crystal display device comprising first and second spaced apart display substrates enclosing a layer of a liquid crystal material, an inner surface of each substrate being provided with a plurality of elongate parallel electrodes each of which is in register with an elongate color filter of substantially the same size and shape (See Figures) as the electrode with which it is registered and is provided on the same substrate; the electrodes on one of the inner surfaces being aligned substantially orthogonally to those on the other inner surface so that the color of light transmitted through a location where two color filters overlap is determined by the light transmitted by both of the filters and the color filters to be reflective absorptive filters. Although Toshiro does not explicitly teach the device to further include a backlight located adjacent to an outer surface of the second display substrate, one of ordinary skill would have likely included a backlight device since a backlight device to illuminate the display is well known.

#### ***Response to Arguments***

Applicant's arguments filed 13 April 2009 have been fully considered but they are not persuasive. Applicant argues the two electrodes taught by Toshiro are not orthogonal in relation to one another. However, the Examiner disagrees. Referring to Figure 2 of Toshiro, the electrodes (13) are orthogonal to the electrodes (14). It is additionally noted that Applicant has not provided or clearly defined a specific orientation in regards to which side of the first electrodes are orthogonal to which side of the second electrodes.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TINA M. WONG whose telephone number is (571)272-2352. The examiner can normally be reached on Monday-Friday 8:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Uyen-Chau Le can be reached on (571) 272-2397. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Tina M Wong/  
Primary Examiner, Art Unit 2874